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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,004	08/08/2001	Werner Agne	A34361 (071308.0171)	3612

31625 7590 01/09/2007
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EXAMINER

QIN, YIXING

ART UNIT	PAPER NUMBER
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2625

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/925,004

Applicant(s)

AGNE, WERNER

Examiner

Yixing Qin

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

In response to applicant's amendment received 10/26/06, all requested changes have been entered.

Response to Arguments

Applicant's arguments filed 10/26/06 have been fully considered but they are not persuasive. While the arguments focus on the Bohrer reference, the Tokiwa reference has a plurality of slave control sections 3 that can be seen in Fig. 1. These slave control sections are cited to be the control function units associated to the plurality of drive systems (CT1-CT4). From Fig. 1 of Tokiwa, one of ordinary skill can tell that the slave control sections 3 only control the functions of the blocks that are associated with it. That is, the slave control section 3 that controls functions of blocks #11-#14 is not going to be controlling the functions of blocks #45-#48. Thus, this suggests that each control function unit (i.e. slave control sections 3) is controls the drive system to which is associated.

Regarding the Bohrer reference, the plurality of device 50 is interpreted to be the plurality of computer control units being associated to only one drive system as claimed in claim 18. Note that in column 7, lines 14-50 Bohrer discloses the implementation of a redundant design, meaning that the each of the plurality of devices 50 of Bohrer are associated with only one drive system as seen in Fig. 4.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

I. Claims 6-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokiwa (U.S. Patent No. 6,343,549) in view of Bohrer et al (U.S. Patent No. 5,947,023).

Regarding claims 6, 15, 18 and 19, Tokiwa discloses a data transmission system for use in a machine comprising:

a plurality of drive systems each comprising an associated control functional unit, wherein each control function unit only controls the drive system to which it is associated (Fig. 1 and column 3, lines 1-8 that there are a plurality of printing units CT1-CT4, item 3 is a slave control section that is associated with each drive system (column 1, lines 33-35 and column 3, lines 21-27).)

It does not explicitly disclose all parts of "control computers associated to each drive system linked through a first control network and coupled with said control functional units to perform high level process control;

a second independent network interconnecting said control functional units for real time cross-communication there between,

whereby information relating to movement control from any one of said control functional units is simultaneously transmitted to all of the other of said control functional units."

However, Tokiwa discloses in column 3, lines 30-35 that if one loop of the network failed, the other of the network line 5 can still be used to communicate. Also note in Bohrer, column 5, lines 32-36 that there is are two buses, a parameterization and a synchronization bus in their invention.

Tokiwa discloses in column 5, lines 14-19 that the master control sections can transmit information to the slave control sections 3, but does not explicitly disclose that the slave sections can transmit information among each other. However, Bohrer also

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discloses control functional units in the form of control units 50 in Fig. 4 (these can read upon the plurality of computer control units being associated to only one drive system as claimed in claim 18). Also, column 7, lines 14-50 discloses the implementation of a redundant design, meaning that the plurality of devices 50 of Bohrer are associated with only one drive system as seen in Fig. 4.

Tokiwa and Bohrer are both in the art of printing machines utilizing control units and networks

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have improved Tokiwa's invention using the multiple network setup as in Bohrer.

The motivation would be to allow every printing part of the machine to work in sync.

Therefore, it would have been obvious to combine Tokiwa and Bohrer to obtain the invention as specified.

Claims 18 and 19 are directed to using Ethernet networks, but as explained below in the rejection to claims 7,8,16 and 17, Ethernet networks are well known even though neither reference explicitly discloses the use of an Ethernet network.

Regarding claims 7, 8, 16, 17, Tokiwa and Bohrer use the words "network" or "bus" and not explicitly an Ethernet network. However, Ethernet networks are a well known medium to be used in communicating information.

Regarding claim 9, Tokiwa discloses the data transmission system according to claim 6, wherein data and synchronization signals from drive regulators can be interchanged with an associated control functional unit using Ethernet real-time communication. (Fig. 3 the internal components of a slave control unit 3. Various components such as the master speed output section 32, feedback speed output section 39 and the motor driver can be combined with the motor M and the printing couple C (column 3, lines 13-16) to form a drive regulator since these components help regulate speed. Also see in Bohrer column 5, lines 13-16 that the underlying rpm and torque control)

Regarding claim 10, Tokiwa discloses the data transmission system according to claim 6, wherein the machine is a printing machine. (Fig. 1)

Regarding claim 11, Tokiwa discloses the data transmission system according to claim 6, wherein each drive system comprises a plurality of drive regulators coupled with each respective control functional unit. (Fig. 1 -the drive regulator BK - formed from M with C - is coupled to the slave control unit)

Regarding claim 12, Tokiwa discloses the data transmission system according to claim 11, wherein the drive regulators of one drive system are linked through a third network selected from the group consisting of a ring network, a serial network, and a star network. (Figs. 1 and 3 of Tokiwa - the drive regulator as described above in claim 9 is connected through a network, which looks to be serial)

Regarding claim 13, this claim has been addressed in claim 7 above.

Regarding claim 14, Tokiwa discloses the data transmission system according to claim 6, wherein the first network is used to transmit non-time critical data or parameters. (column 4, lines 26-32 that the information that the slave control unit can receive non-time critical data or parameters such as a master speed or phase values.)

Regarding claim 20, this claim has been addressed in claims 12 and 19

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yixing Qin whose telephone number is (571)272-7381. The examiner can normally be reached on M-F 9:30-6:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571)272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



YQ



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